IN THE SPECIFICATION:

Please amend the specification as follows:

Please amend the paragraph bridging pages 14 and 15, from line 19 on page 14 through line 16 on page 15, as follows:

When the magnetic exchange interaction J is positive, in a relative direction of magnetization of the ferromagnetic metallic layers 1 and 3, a state in parallel but in the opposite directions is stable, and when J is negative, a state in parallel and in the same direction is stable. A work function of the surface of the multilayer film, distance between the metal probe 5 and the surface of the multilayer film 41, and the electric field are changed, whereby it is possible to set the height of a potential barrier on the surface of the multilayer film to a suitable value equal to or higher than 0 eV [[0e V]]. By changing the distance and the electric field between the metal probe 5 and the surface of the multilayer film 41, the shape of potential on the surface of the ferromagnetic metallic layer 3 is changed, whereby it is possible to make the magnetic exchange interaction J exerting on between the ferromagnetic metallic layers 1 and 3 positive or negative, and a change in exchange connection energy of about 0.1 mJ/m^2 sufficiently exceeds a coercive force of magnetization of the ferromagnetic metallic layer 3. In other words, it can be said that relative directions of magnetization of the ferromagnetic metallic layers 1 and 3 can be sufficiently rewritten by the metal probe 5.

Please amend the paragraphs on page 20, from lines 1 through 24, as follows:

With reference to Fig. 5, the description will be made of the third embodiment. In the third embodiment, the protection film 4 and the ferromagnetic layer 3 are patterned in a dot shape as shown in Fig. 5 by means of the lithography technique using the semiconductor fabrication technique such as resist patterning, ion-milling and resist removal during formation of each layer, and pillar-shaped nanopillars 53 and 54 are formed. In this case, a nanopillar including the non-magnetic metallic layer 2, the ferromagnetic layer 1 and the anti-ferromagnetic layer 51 [[11]] may be constituted, and it does not contribute much to the improvement in the storage characteristic due to the formation of the nanopillar.

As can be easily understood by comparing Fig. 5 with Fig. 4, the third embodiment is different from the second embodiment only in that domains which become individual units of storage have been patterned in a dot shape, and pillar-shaped nanopillars 53 and 54

corresponding to the storage domain are formed. In this case, the nanopillar means a circular or ellipse shape, or a square or rectangular shape, pillar in units of nm in size on a plane. Even in the third embodiment, it may be possible to have no anti-ferromagnetic layer 51 [[11]] as in the case of the first embodiment.